

Assembly Book

Revised March 20, 2014

Grow-N-Stow Greenhouse Kit



Clairmont

12' wide x 8' deep

Manufactured by Reynolds Building Systems, Inc.

205 Arlington Drive

Greenville, PA 16125

724-646-3775

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IMPORTANT INFORMATION ABOUT YOUR SHED KIT

Thank you for purchasing our kit. These instructions will construct a 12'x8' building. The foundation size should be $\underline{12'-0"} \times 8'0"$ exactly. If you received two books, use the one with the latest revision date

Read the instructions before starting the assembly of the building. If you have any questions about assembling the kit, call 800-245-1577. Business hours (8:00-5:00 ET) Monday thru Friday. After business hours call 724-866-HELP (4357) or email to help@barnkits.com.

The material that is included in our kit is listed on the back page. The optional floor package, *if ordered*, will be supplied by a local lumber supplier. It is very important the floor is level and square in order for the building to be assembled correctly.

Our kit does not include the shingles. You will need (2) two bundle of shingles and (2) two piece of 10' long metal roof edge. The siding is primed. You will need to apply a finish coat using latex acrylic paint.

IMPORTANT: Save the pallet material, the boards will be used for bracing.

Stacking the boards, according to size, will make them easier to find when needed. Some boards have colored ends. All the wall studs have black ends, stack these boards together. **Do Not** discard any material until your building is complete.

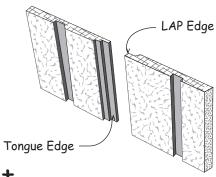
Obtain a building permit and check all pertinent building code regulations.

Thank you for your purchase.

Bill & Linda Rinella, owners

The siding is made in 4x8 sheets with grooves cut into the face, the long edge is beveled so that the siding overlays where they butt.

To identify which edge we want you to use, we will refer to the edge as either the 'LAP' Edge or the Tongue Edge. Nail siding with 8d galv. nails, spaced 12" apart.



Tool List

Ш	Hammer & Hand Saw	Power Drill/screwdriver
	Framing Square & Level	Measuring Tape
	Power Circular Saw	2 - 8' Step Ladders

Always wear safety glasses when cutting or nailing!

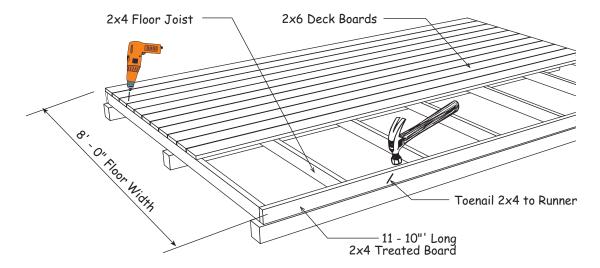
Suggested Wood Floor System

2x4 Joist Header

1. Cut (2) two 2x4-12' boards to a length of 11'-10". Layout for 24" on center floor joist spacing. 'The 'X' marks where floor joist will be placed. Save the remaining 2x4-12' boards for the shelf.

X	X	l×	X	\leq
X	X	X	X	7
 ← 23-1	/4"→ ←── 24	1" —> ← 24	" ->	

- 2. Cut (7) seven 2x4-8' floor joist to a length of 93". *Treated lumber may be thicker than 1-1/2". Shorten joist measurements if necessary to obtain 8'-0" building width.* Build a deck frame by nailing the 2x4s cut above with 16d galv. deck nails.
- 3. Position (3) three 4x4-12' treated runners on the ground. Install the 2x4 deck assembly on the 4x4 runners. Square the 2x4 frame...see note below. Toenail the 2x4 frame to the 4x4 runners with 16d galv. deck nails.
- 4. Cut (17) seventeen 2x6 treated deck boards to a length of 11'-10". Secure 2x6 boards to the 2x4 boards using 3" wood screws. Use (2) two screws on each 2x4 boards. Trim the last board if it extends past the edge of the 2x4 frame. Save the remaining boards for the shelf.



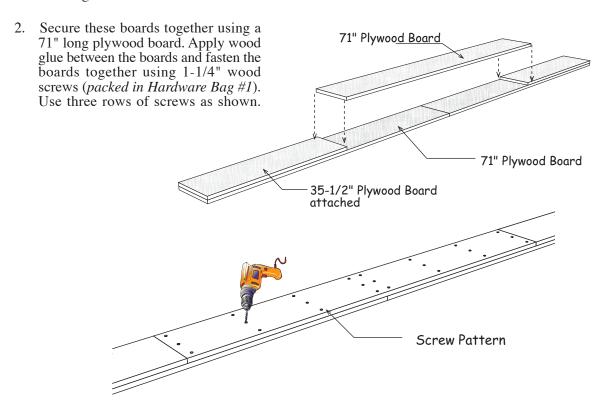
Square Floor: It is important that the floor be level and square. Before nailing the flooring, measure the floor diagonally (corner to corner). Then measure the opposite corners. These measurements will be the same if the floor is square.

Interior Shelf: Set aside (3) three 2x6 treated boards and (3) three 2x4-12' treated boards and any leftover screws and nails. They will be used to build an interior shelf.

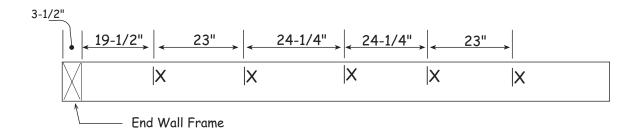
Material Shipped from Home Center					
2x4	Treated Boards	5 pcs. 1	2'		
2x4	Treated Boards	7 pcs.	8'		
2x6	Treated Boards	20 pcs. 1	2'		
4x4	Treated Runners	3 pcs. 1	2'		
16d	Galv. Deck Nails	2 lbs.			
3"	Galv. Deck Screws	3 lbs.			

Step 1 Assemble Plywood Ridge Beam

1. Locate (2) two 9-1/4" x 71" long plywood boards that have a 35-1/2" plywood board attached to one of the ends. Lay these boards on a flat level surface and butt them together as shown below.

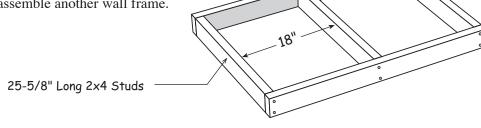


3. Mark where the roof rafters will be positioned with lines, *and 'X' marks to the right of the lines*, as shown below. The 'X' marks where the rafters will be located. Start the measurements 3-1/2" in from the left end of the ridge beam. Transfer the lines and 'X' to the other side since rafters will be installed on both sides of the ridge beam.



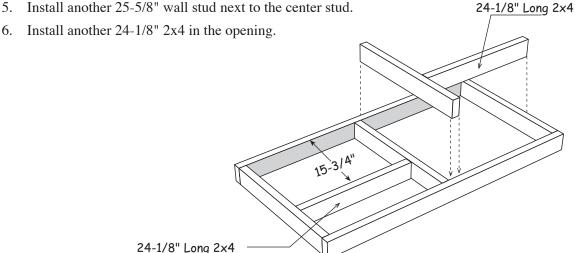
Step 2 **Assemble Upper Back Wall Frames**

- 1. Install (3) three 25-5/8" wall studs between (2) two 40-3/8" long 2x4 wall plates. Use 10d sinkers, (2) two nails on each end of wall studs.
- 2. Repeat to assemble another wall frame.



- 3. Install (3) three 25-5/8" wall studs between (2) two 54-1/4" long 2x4 wall plates. Use the 24-1/8" long 2x4 as a gauge to properly locate the center stud.
- 4. Install the 24-1/8" long 2x4 15-3/4" below the 2x4 top plate.

5. Install another 25-5/8" wall stud next to the center stud.



24-1/8" Long 2x4

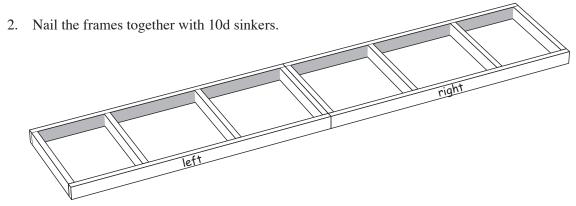
Mark Wall Stud Location on 2x4 Wall Plates Step 3

Position (4) four 67-1/2" long 2x4s together and indicate with 'X' marks, where the wall studs will be located. Mark the plates 'left' and 'right'.

			67-1/2"				6	7-1/2"	
X	left	X	X	X	X	right	X	X	X
X	left	X	X	X	X	right	X	X	X
 ←19	9-3/4"-	→ ←	−24" →		-	23-1/4" -	→ ←	24"	

Step 4 Assemble Lower Back Wall Frames

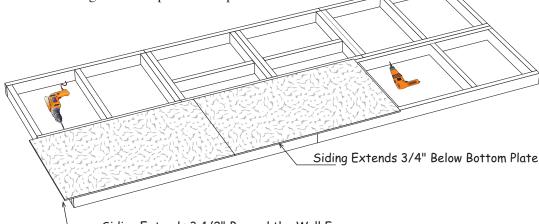
1. Using 2x4 plates from **Step 3**, install 23-3/4" long wall studs between the wall plates, over the 'X' marks. Use 10d sinkers.



Step 5 Assemble Back Wall Panels

- 1. Install the wall frames assembled in **Step 2** over the frames assembled above. Screw the frames together with 3" long screws with bit, (*packed in Hardware Bag #3*).
- 2. Square wall frame. Measure diagonally (corner to corner). The measurements will be the same when the wall is square.
- 3. Install a 48" x 27-1/2" siding panel with the 'LAP' edge extending 3-1/2" beyond the left side of the wall frame. The bottom will extend 3/4" below the bottom plate.

 Install with 8d galv. nails spaced 12" apart.



Siding Extends 3-1/2" Beyond the Wall Frame

- 4. Install another 48" x 27-1/2" siding panel in the center.
- 5. Install the 46" wide siding panel. It will extend 3/1/2" beyond wall frame.

Step 6A Assemble Left End Wall

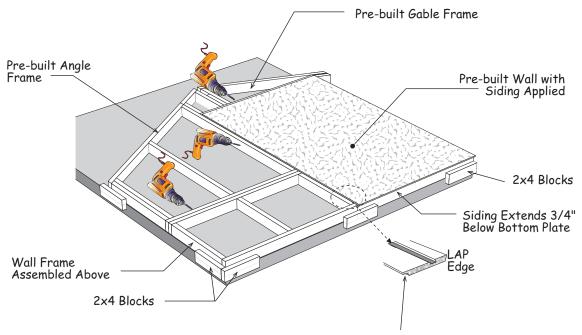
23-3/4" Wall Studs

- Install (3) three 23-3/4" wall studs between
 (2) two 48" long 2x4 wall plates.

 Repeat to assemble another wall frame.

 Install Stud
- 3. Locate a pre-built 48" wide angle wall frame and a smaller pre-built gable frame.
- 4. Locate a one of the larger wall frames with the siding applied. Select the one marked 'LEFT'.

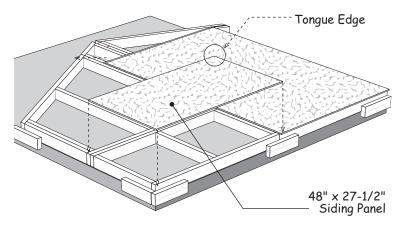
in Center



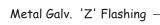
- 5. Position the large frame, *with siding applied*, on the floor. The 'LAP" edge should be on the left and the siding should extend 3/4" below the bottom plate. If not, you have selected the wrong wall panel.
- 6. Position the other wall frames on the floor. To hold frame in position you can screw 10" long 2x4 blocks (*supplied in kit*) to the floor as shown above.
- 7. Screw frames together with 3" wood screws.

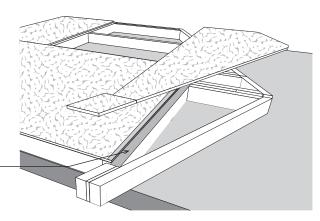
Step 6B Install Siding on the Left End Wall Frame

1. Install a 48" x 27-1/2" siding panel. Insert the 'Tongue Edge' under the LAP Edge of the larger siding panel. The bottom will extend 3/4" below the bottom plate.

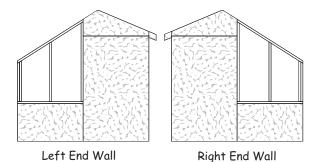


- 2. Lay a metal 48" long 'Z' flashing at the top of the larger siding panel.
- 3. Install a larger angled siding panel and a small siding panel (hardware bag #2) at the top of the end wall. The smaller siding piece is a filler. The trim, installed later, will cover where the siding panels butt together. Nail along the top and the bottom edges of the siding with 8d galv. nails.





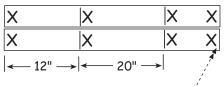
- 4. Assemble another wall frame using the frame assembled in **Step 6A** and the remaining pre-built angle frames.
- 5. Assemble the end wall frames together. You will have Left' and 'Right' end wall frames as shown on right.



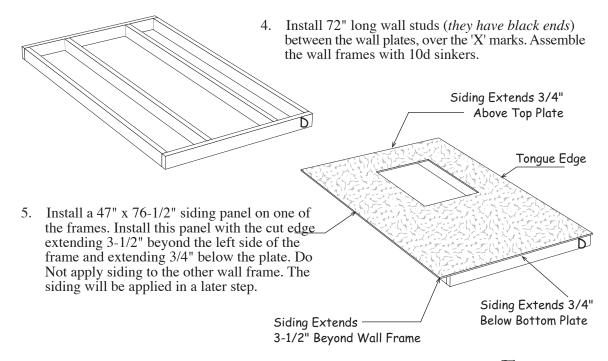
Step 7 Assemble Front Walls

- 1. Position (2) two 43-1/2" long 2x4s together and indicate with 'X' marks where the 2x4 studs will be located.
- 2. Mark another set of 2x4s for another wall frame.

43-1/2" Long 2x4 Plates



3. Turn boards over and mark this end with the letter '**D**'.



Step 8A Set Left Corner Walls

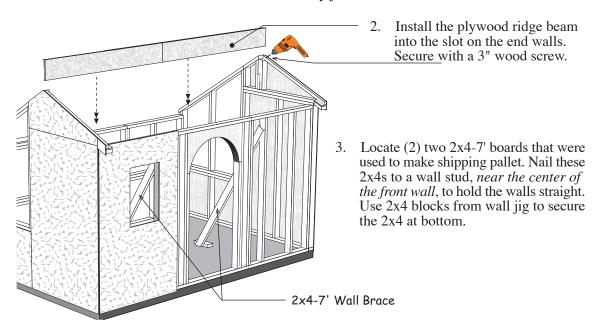
Stand up the left end wall and left front wall panel. Slide the siding on the front wall panel through the slot in the end wall overhang.

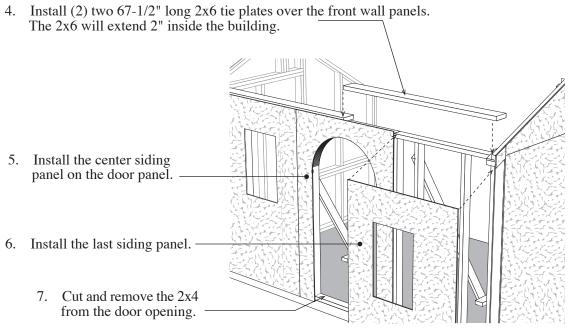
Secure wall panels together at the corners using (4) four 10d sinkers. Secure the wall panels, through the bottom plates, to the wood floor. Use 3" wood screws or deck nails furnished with the optional floor. Spaced screws or nails 24" apart.



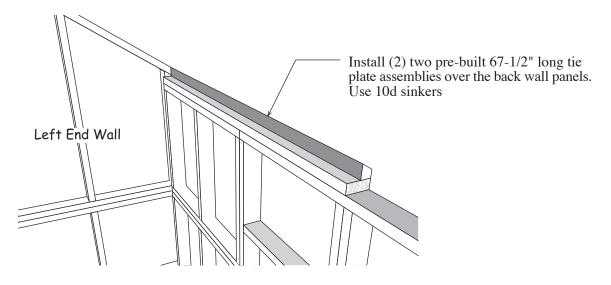
Step 8B Set Walls and Ridge Beam

1. Set up the back wall and right end wall panels. Install the door wall frame and the right front wall frame. Secure to floor and where they join at the corners.





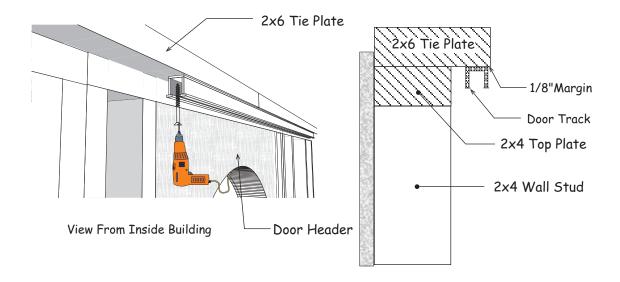
Step 9 Install Tie Plates on Back Wall



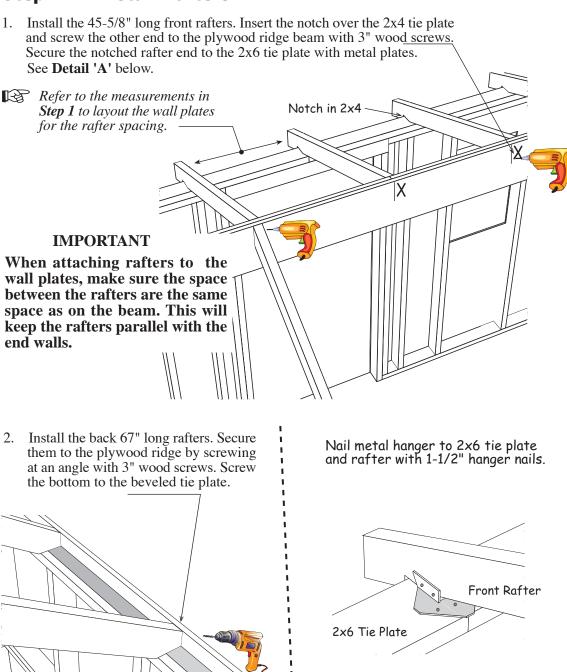
View From Inside

Step 10 Install Pocket Door Track

Install a 68" long aluminum door track under the 2x6 tie plate on the front wall. Use 1-1/2" screws, with washers, (*hardware bag #2*). Install the track 16-1/2" from the right end wall, *when inside the building*, and 1/8" back from the outside edge of the 2x6 board.

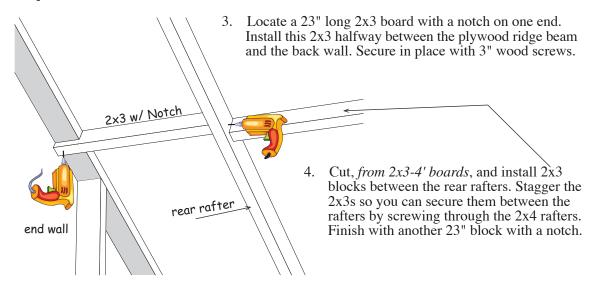


Step 11 Install Rafters



Detail 'A'

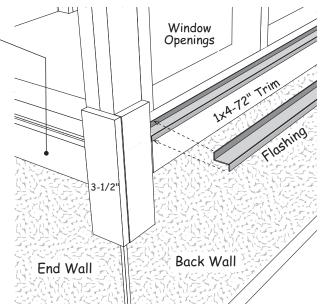
Step 11 Install Rafters Continued



View From Inside Building

Step 12 Install Lower Trim & Metal Flashing

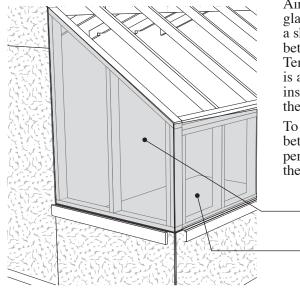
- 1. Locate a white pine trim gauge block. Use this gauge block to install the lower 1x4 trim boards under the window openings. Tack this gauge block to the back corner with the 3-1/2" wide board facing the end wall.
- 2. Install a 46-1/2" long 1x4 trim board on the end wall flush with the top of the siding. See **Step 14**.
- 3. Install a 72" long 1x4 trim board flush with the top of the siding on the back wall. See **Step 14**.
- 4. Move the gauge block to the opposite rear corner and install another 1x4 on the end wall.
- 5. Cut a 1x4-6' trim board and install on the back wall.
- 6. Install 68-1/4" long white flashing over the trim on the back wall. Hold in place with a couple 1-1/4" long nails.
- 7. Install 45-1/2" long white flashing over the trim on the end walls.



Step 13 Install Polycarbonate Panels

Before installing polycarbonate panels, stain the exposed wood framing in the greenhouse area with a wood preservative stain. Choose a stain with mildew killing agents. Cabot offers a stain for high moisture area in several colors.

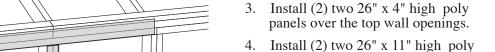
The polycarbonate glass panels are shipped with a protective film. One side of the panel is coated with a UV (ultra-violet) coating which should be installed facing the sun. The side with the UV coating is identified with blue lettering and should be kept on until the panels are installed.



Airborne dust may have accumulated between the glass during storage or shipping. If possible, use a shop vac to suck or blow air through the space between the glass to dislodge any dirt or dust. Temporarily hold the panel in place, until the trim is applied, with small 1" long brad/nails. Before installing the glass panels remove the film from the back side, the side without lettering.

To allow moisture to drain if condensation occurs between the panels, set the panel on a couple pennies to provide a space between the panels and the metal flashing when installing the poly panels

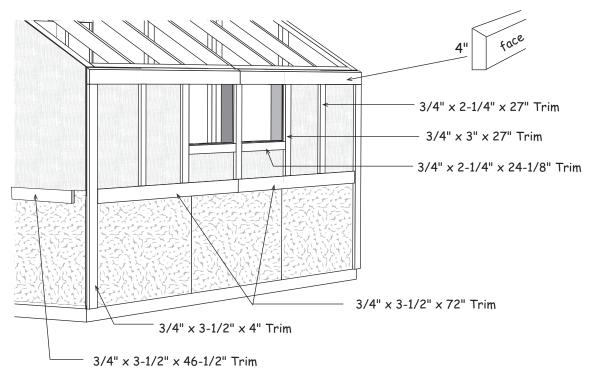
- 1. Install a 48" wide poly panel over the end wall opening.
- 2. Install a 45" x 31" high poly panel over the left opening on the back wall



5. Install a 3" x 15-1/2" high poly panel between the window openings.

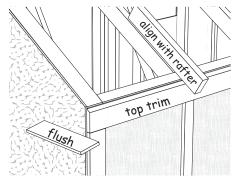
panels over the lower wall openings.

Step 14 Install White Pine Trim on Back Wall



1. Locate (2) two 67-1/2" long trim boards that have a bevel cut on the long edge. **Important:** *The trim boards for the back wall are 4" in width. The wider boards are for the front fascia.*

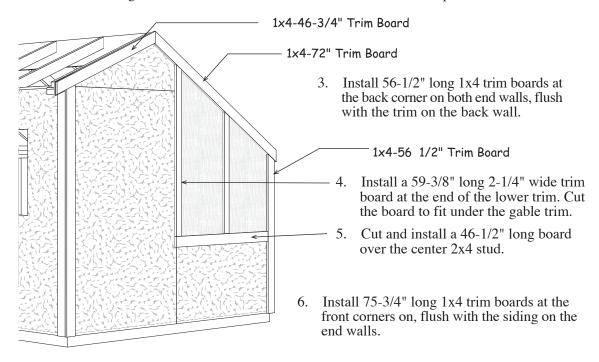
Install one of the boards flush with the glass and siding on the end wall. The bevel on the top of the trim board need to align with the bevel on the sidewall tie plate. Use a straight edge to set the trim board properly. Install all trim with 8d galv. nails. Space nails 12" apart.



- 2. Install (2) two 54" long 1x4 trim boards at the corners, flush with the glass and siding on the end walls.
- 3. Install (3) three 3" x 27" long trim boards on each side and between the window openings. Install the side trim boards flush with the side of the window openings.
- 4. Install (2) two 2-1/4" x 27" long trim boards over the 2x4 wall studs between the window openings and the outside corners.

Step 15 Install White Pine Trim on End Wall

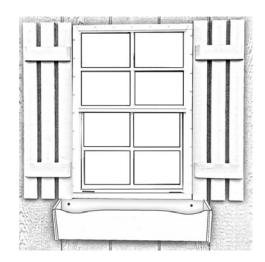
- 1. Install 46-3/4" long 1x4 trim boards on both end walls, flush with the top of the frame.
- 2. Install 72" long 1x4 trim boards on both end walls, flush with the top of the frame.



7. Install 77-3/4" long 1x4 trim boards at the front corner on both end walls, flush with the trim on the front wall.

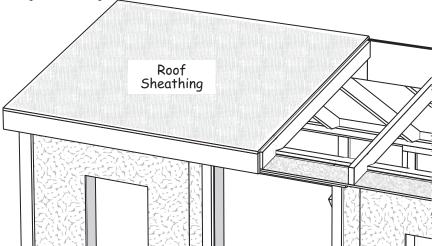
Install Front Windows

- 1. After you paint the siding you can install the front windows and wood shutters. Using short white screws to install the windows.
 - Secure the wood shutter, screw through the back of the siding into the shutters with 1-1/4' wood screws. The screws for the windows and shutters are in the windows box.
- 2. Install the flower box with (2) two 1-1/2" galv. screws (*hardware bag #1*) that have washers attached.



Step 16 Install Roof Sheathing and Fascia

- 1. Install 5-1/4" wide x 72" soffit boards under the 2x4 rafter overhang. Install the beveled edge of the soffit towards the 1x6 fascia that will be installed next, See **Detail 'F'** below.
- 2. Install a 72-1/4" long 1x6 fascia board to the 2x4 rafters, flush with the gable trim on the end wall. Install the beveled edge pointing up and aligned with the top of the rafters so the bottom edge of the roof sheathing will rest on the beveled edge. Use 8d galv. nails. Install another 1x6 fascia board. Trim board if it extends beyond the gable trim on the end wall.
- 3. Cut (2) two 48"x72" OSB roof panels to a width of 46-1/2" and install over the 2x4 rafters. The bottom corners of the roof panels should not extend beyond the face of the 1x6 fascia board. Use 7d sinkers spaced 12" apart.



4. Install the other roof sheathing panel.

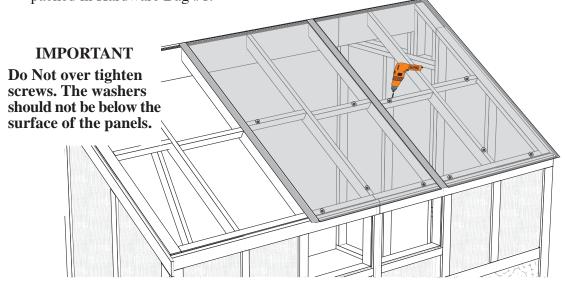
Detail 'F'

3/8" Soffit panel

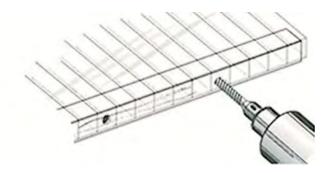
w/ beveled edge

Step 17 Install Polycarbonate Roof Panels

1. Install a 48" x 72" polycarbonate glass panel over the 2x4 rafters. Align the top edge with the ridge of the roof. The first panel will extend 1/2" beyond the end wall. Hold panel in place with a couple of 1" nails. Screw the panel using (5) five 1-1/2" screws (with washer). Drill 3/8" diameter holes before installing the screws. Install screws in the 2x3 blocks 6" from the edge. Install screws at the bottom corners and 6" from the bottom of the center rafter. See screw pattern below. Screws and washers are packed in Hardware Bag #1.

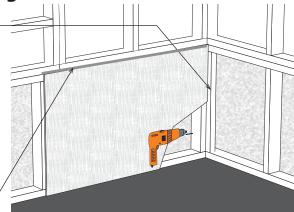


- 2. Slide a 72" long divider strip over the long edge of the polycarbonate panel and install another poly panel
- 3. Install the remaining divider strip and polycarbonate glass panel.
- 4. Install 48" long 'U' shaped channel mould over the bottom edges of the poly panels. Drill small holes every 12" to allow for condensation to drain.



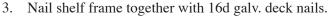
Step 18 Install Plastic Corrugated Interior Panels

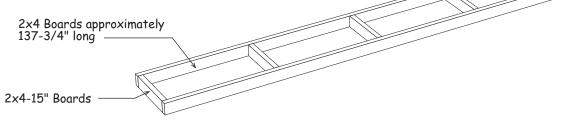
- 1. Install a 23-3/4" long 2x4 wall stud in each corner of the end wall. Install the 2x4 flat and screw through the 2x4 stud on the back wall.
- 2. Cut to width and install plastic corrugated panels, under the glass, on the back and end walls. Install the panels with 1" long brad nails (*Hardware Bag #1*).
- 3. Install vinyl moulding over the top of the panels.



Step 19 Install Optional Shelf (included with floor)

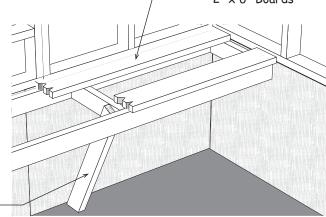
- 1. Cut (2) two 2x4-12' treated boards to fit between the end walls.
- 2. From another 2x4-12' board, cut (5) five 2x4s to a length of 15".





- 4. Install the shelf frame across the back wall. Install frame 2" below the vinyl cap moulding. Use 3" long screws.

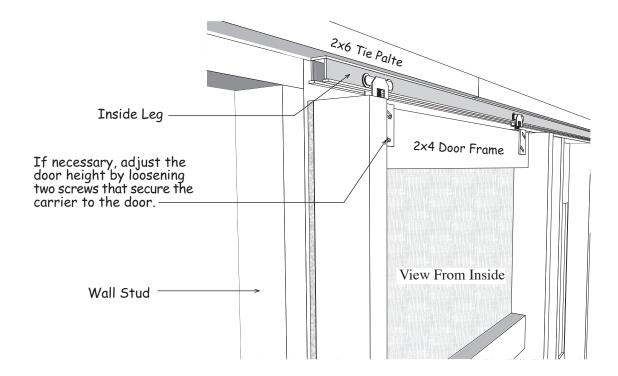
 2" x 6" Boards
- 5. From the leftover 2x4, cut (2) two support legs. Install the legs to the shelf as shown. Use 3" screws.
- 6. Cut (3) three 2x6 treated boards to fit between the end walls. Install a board along the back wall and one along the front of the shelf. Install the third board between the boards. Use 2-1/2" long wood screws.



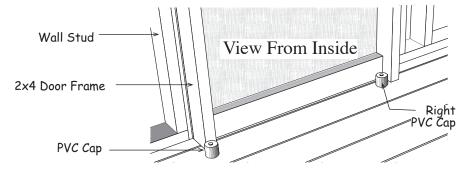
2x4 Support Leg

Step 20 Install Pocket Door

1. Hang the door, sliding the rollers on the track as shown below. IMPORTANT: Install rollers on the <u>inside track leg</u>, not between the legs.

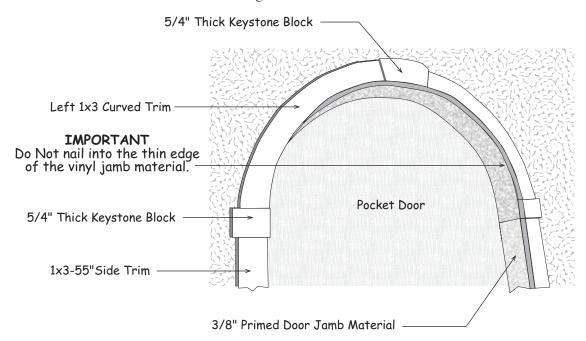


2. Close the door. To prevent door from swinging into the building, install PVC caps, (in hardware bag #2), to the floor where shown below. To enable the door to open without rubbing against the door jamb, allow a small space between the aluminum on the door's bottom and the door jamb. Attach caps with 3" wood screws. Install the right cap against the vertical 2x4 door frame. This cap will act as a door stop when the door is open.



Step 21 Install Door Trim

- 1. Install 3/8" x 3-7/8" x 57" long prime boards to the door jamb. Install the jamb material below the curved vinyl material installed on the door header. Use 6d galv. nails.
- 2. Install (2) two 1x3x55" white pine trim boards along each side of the door opening, flush with the face of the door jamb and the bottom of the siding.
- 3. Install 5/4" x 3-1/4" long blocks, (in hardware bag #2), on top of the 1x3 trim boards.
- 4. Install a curved 1x3 door trim on the left side of the curved door header, flush with the vinyl material. Use 8d galv. nails to install all door trim.
- 5. Install a 5/4" x 7" long keystone, (in hardware bag #2), at the top of the door opening.
- 6. Install the curved door trim on the right side.



Step 22 Install Door Latch

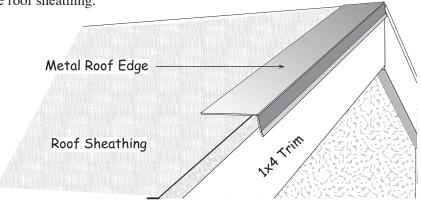
Install the door latch on the door and jamb, 36" from the bottom of the door. The door latch needs to be screwed to the 2x4 block, located on the back of the door siding.

The latch is in *Hardware Bag #2*.



Step 23 Install Front Roofing — Not Supplied in Kit

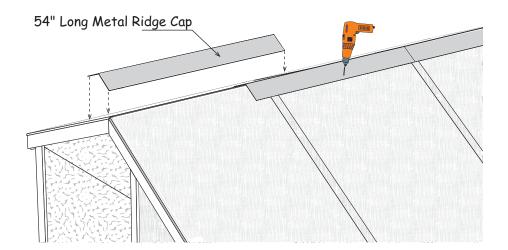
1. Install metal roof edging along the end walls and the front edge of the roof sheathing.



2. Install shingles according to the instructions on the wrapper. If you need more detailed instructions on installing shingles, there are good publications at book stores or newsstands.

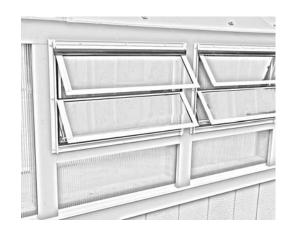
Step 24 Install Metal Ridge Cap

Install 54" long metal ridge cap across the top of the roof. The top cap will overlap the one below it. Secure with 1-1/2" long metal screws with washers. The screws are (in Hardware Bag #1).



Step 25 Install Windows

Install the awning windows using short white screws (packed in Hardware bag #1). The window cranks are (in Hardware Bag #2).



Qua	antity	Size	Description	Use For	Bag #
25	ea.	1-1/2"	Black Wood Screws	plywood ridge beam	1
16	ea.	1-1/2"	White Metal Screws w/washers	metal ridge cap	1
10	ea.	1-1/2"	Galv. Metal Screws w/washers	door track & flower boxes	1
16	ea.	3/4"	White Window Screws	crank-out windows	1
26	ea.	1-1/2"	Wood Screws	polycarbonate roof panels	1
26	ea.	1-1/2"	Rubber Cap Washers	polycarbonate roof panels	1
60	ea.	1-1/4"	Brad (nails)	poly and interior panels	1
1	ea.	2"	Square Screw Bit	drill bit for screws	1
1	ea.	4"	Door Latch	for pocket door	2
2	ea.	1-1/4"	White PVC Caps	pocket door stops	2
2	ea.	4"	Window crank handles	awning window openers	2
1	ea.	5/4"	6" Long Trim Board	pocket door top trim	2
2	ea.	5/4"	3" Long Trim Board	pocket door side trim	2
2	ea.	3/8"	Primed LP siding panels	endwall overhang	2
50	ea.	3"	Wood Screws w/ bit	attaching framing	3
1	ea.	tube	Wood Glue	plywood ridge beam	
5	ea.	HI	Metal Rafter Hangers	secure front rafters	
3	1 lb.	box	10d Sinkers	2x4 framing	
4	1 lb.	box	8d Galv. Nails	white pine trim	
1	1 lb.	box	7d Coated Nails	roof sheathing	
1	1 lb.	box	6d Galv. Nails	trim	
1/2	1 lb.	box	1/1/2" Nails	metal rafter hangers	

	Material	Packaged In	Con	nponent Kit
8	Wall Studs 2x4	72"	4	ea. 1x5 Beveled Fascia 72"
4	Wall Plates 2x4	67-1/2"	2	ea. 1x4 Gable Trim 72"
5	Rear Rafters 2x4	67"	2	ea. 1x4 Gable Trim 46-1/8"
5	Front Rafters 2x4	45-5/8"	2	ea. 1x4 Corner Trim 77-3/4"
2	Wall Plates 2x4	54-1/4"	2	ea. 1x4 Corner Trim 75-3/8"
4	Wall Plates 2x4	43-1/2"	2	ea. 1x4 Corner Trim 56"
4	Wall Plates 2x4	48"	2	ea. 1x4 Corner Trim 54"
4	Wall Plates 2x4	40-3/8"	2	ea. 1x4 Window Trim 46-1/2"
10	Wall Studs 2x4	25-5/8"	2	ea. 1x4 Window Trim 72"
2	Wall Studs 2x4	24-1/8"	2	ea. 1x3 Door Trim-sides 59-3/8"
16	Wall Studs 2x4	23-3/4"	2	ea. 1x3 Door Trim-curve 28"
10	Wall Jig Blocks 2x4	10" approx.	2	ea. 1x3 Window Trim 56-3/4"
2	Rafter Blocks 2x3 w	notch 23"	2	ea. 1x3 Window Trim 44"
2	Rafter Blocks 2x3	48"	2	ea. 1x3 Window Trim 46-1/2"
2	Front Soffit Boards	5-1/4" x 71"	5	ea. 1x3 Window Trim 27"
2	Siding Panels-End (angled)	18" x 48"	2	ea. 1x3 Window Trim 24-1/8"
2	Siding Panels-Front Wall	47" x 76-1/2"	1	ea. Corner Trim Gauge Block 8"
1	Siding Panels-Front Panel	48" x 76-1/2"		pre-built with 1x4 trim boards
1	Siding Panels	46" x 27-1/2		
4	Siding Panels	48" x 27-1/2"	2	Primed Door Jamb 3/8" x 3-7/8" x 57"
2	OSB Roof Sheathing	48" x 72-1/8"	2	48" long galv. 'Z' Flashing (under siding
2	Plywood Ridge Beam 3/	4" x 9-1/4" x 71"	2	46" long white 'Z' Flashing (under glass
	with 9-1/4" x 35-1/2" plywo	ood attached	2	69" long white 'Z' Flashing (under glass
1	Plywood (loose) Board 3/	4" x 9-1/4" x 71"	3	12" x 54" Ridge Cap for Roof
2	Pre-built 2x4 Beveled Tie F	Plates 67-1/2"	3	48" x 71-3/4" Polycarbonate Roof Panel
2	Pre-built End Wall Frames	48" x 76"	2	48" x 72" Polycarbonate Angle Panels
	with siding applied		2	45" x 31" Polycarbonate Panels
2	Pre-built Angled End Wall	Frames 48"	2	3" x 15-1/2" Polycarbonate Panels
2	Pre-built End Wall Gable F	rames 48"	2	26" x 11" Polycarbonate Panels
1	Pre-built Curved Door Fran	ne 48"	2	26" x 4" Polycarbonate Panels
1	Pre-built Pocket Door	34" x 72"	2	71-1/2" Polycarbonate Divider
2	18" x 27" Single Hung Alui	n. Windows	3	48" Polycarbonate Cap Moulding
2	24" x 16" Awning Windows	3	5	48" x 26-3/4" Plastic Corrugated Panels
2	27" Flower Boxes		5	48" White Vinyl Cap (for above panels)
			1	68" Aluminum Pocket Door Track

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